Docket No. RSW920030069US1 (7161-097U) **PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of	:	Customer Number: 46320
Ronald DOYLE, et al.	:	Confirmation Number: 6219
Application No.: 10/612,583	:	Group Art Unit: 2113
Filed: July 1, 2003	:	Examiner: E. Mehrmanesh

For: AUTONOMIC PROGRAM ERROR DETECTION AND CORRECTION

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed June 1, 2007, wherein Appellants appeal from the Examiner's rejection of claims 1-15.

I. REAL PARTY IN INTEREST

This application is assigned to IBM Corporation by assignment recorded on July 1, 2003, at Reel 014263, Frame 0138.

II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals and interferences.

III. STATUS OF CLAIMS

Claims 1-15 are pending and three-times rejected in this Application. It is from the multiple rejections of claims 1-15 that this Appeal is taken.

IV. STATUS OF AMENDMENTS

The claims have not been amended subsequent to the imposition of the Third Office Action dated March 7, 2007 (hereinafter the Third Office Action).

V. SUMMARY OF CLAIMED SUBJECT MATTER

Referring to Figure 3 and also to independent claims 1 and 10, a method for autonomically diagnosing and correcting error conditions in a computing system of interrelated components and resources is disclosed. For each one of the components, error conditions in a log file are reported using both uniform conventions for naming dependent ones of the interrelated components and resources and also a common error reporting format (lines 1-8 of paragraph [0020] of Appellants' disclosure). In block 310, error conditions arising from individual ones of the interrelated components are detected (line 4 of paragraph [0029]). In block 330, in response to detecting an error condition in a specific one of the components, a log associated with the specific one of the components is parsed to determine whether the error condition arose from a fault in one of the interrelated components and resources named in the associated log (lines 6-8 of paragraph [0029]), and in blocks 380 and 330-370, a log associated with the one of the interrelated components and resources is further parsed to identify a cause for the fault (lines 3-8 of paragraph [0030]). In block 360, the fault is corrected (lines 8-10 of paragraph [0030]).

Referring to Figures 1 and 2 and also to independent claim 7, an autonomic system for diagnosing and correcting error conditions among interrelated components and resources 140 is disclosed. The autonomic system includes a plurality of commonly formatted log files 120 and an autonomic system administrator 110. The plurality of commonly formatted log files 120 utilize standardized naming conventions for the interrelated components and resources, and each of the commonly formatted log files have an association with one of the interrelated components and resources 140 (lines 1-8 of paragraph [0020]). The autonomic system administrator 110 is coupled to each of the interrelated components and resources 140 and is configured to parse the log files 120 to identify both error conditions arising in associated ones of the interrelated components and resources 140 and dependent ones of the interrelated components and resources 140 giving rise to the identified error conditions (lines 1-12 of paragraph [0021]).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 1-15 are rejected under 35 U.S.C. § 102 for anticipation based upon Cobb et al., U.S. Patent No. 5,119,377 (hereinafter Cobb).

VII. ARGUMENT

THE REJECTION OF CLAIMS 1-15 UNDER 35 U.S.C. § 102 FOR ANTICIPATION BASED UPON COBB

For convenience of the Honorable Board in addressing the rejections, claims 2-15 stand or fall together with independent claim 1

At the outset, Appellants note that in the Second Office Action dated September 6, 2006 (hereinafter the Second Office Action), the Examiner rejected claims 1-15 under 35 U.S.C. § 103

for obviousness based upon Cobb in view of Kraft, U.S. Patent No. 6,880,107. In the fifth full paragraph on page 3 of the Second Office Action, the Examiner asserted "Cobb fails to explicitly disclose uniform naming conventions."

The concept of uniform naming conventions is found in both independent claims 1, 10 and independent claim 6, which respectively recite:

> for each one of the components, reporting error conditions in a log file using both uniform conventions for naming dependent ones of the interrelated components and resources and also a common error reporting format (claims 1 and 10)
>
> for each one of the components, reporting error conditions in a log file using both uniform conventions for naming dependent ones of the interrelated components and resources and also a common error reporting format (claim 6).

The factual determination of anticipation under 35 U.S.C. § 102 requires the identical disclosure of each element of a claimed invention in a single reference.[1] As part of this analysis, the Examiner must (a) identify the elements of the claims, (b) determine the meaning of the elements in light of the specification and prosecution history, and (c) identify corresponding elements disclosed in the allegedly anticipating reference.[2] This burden has not been met.

Claim 1

On page 2 of the Office Action with regard to claim 1, the Examiner asserted the following:

[1] In re Rijckaert, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); Lindermann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).
[2] Lindermann Maschinenfabrik GMBH v. American Hoist & Derrick Co., supra.

> As per claim 1, Cobb discloses a method for autonomically diagnosing and correcting error conditions in a computing system (col. 2, lines 48-52) of interrelated components and resources (Fig. 10), the method comprising the steps:

Appellants note that the Examiner referred to Fig. 10 of Cobb to disclose a computer system of interrelated components and resources. However, upon reviewing this figure, Appellants are unclear as to exactly what components and resources the Examiner is asserting are interrelated. Moreover, even if "component and resources" are disclosed in Fig. 10, the Examiner has failed to explain how these components and resources are interrelated, as claimed. Upon reviewing the text of Cobb, the only discussion of Fig. 10 found by Appellants is in column 4, lines 15-17 and in column 7, lines 65-69, yet these passages do not yield teachings that correspond to the claimed "interrelated components and resources."

With regard to claim 1, in the paragraph spanning pages 2 and 3 of the Office Action, the Examiner asserted the following:

> For each one of the components, reporting error conditions in a log file (col. 4, lines 21-29) using both uniform conventions for naming dependent ones of the interrelated components and resources (col. 4, lines 26-29) and (Fig. 1, application data table) and also a common error reporting format (col. 5, lines 57-68 through col. 6, lines1-8). Cobb discloses the EDDC process uses the application data table information to generate a dump of specific program storage areas, to create an entry in a software error log (col. 4, lines 26-29). He also discloses using a sequence-naming convention (col. 5, lines 67-68), which is a common error-reporting format.

To teach the limitation that the Examiner has previously asserted that is not explicitly disclosed by Cobb (i.e., "reporting error conditions in a log file using both uniform conventions for naming dependent ones of the interrelated components and ..."), the Examiner relied upon column 4, lines 26-29, and column 4, lines 21-32 is reproduced below:

> The EDDC process requires construction of a table which will be referred to as the Application Data Table (ADT). Its entries contain detailed information about the problem program and are selected by the error detection code as parameters on the call to the EDDC process. The EDDC process uses this table information to generate a dump of specific program storage areas, to create an entry in a software error log and to build a software generic alert. This table is the

> backbone of the EDDC process. It is a predefined table that provides the process with all the information required to provide useful and meaningful diagnostic data outputs. (the specific portion relied upon by the Examiner is underlined)

Completely absent from this cited passage is any teaching of the claimed using "uniform conventions for naming dependent ones of the interrelated components." The claimed limitation involves several concepts including: (i) interrelated components; (ii) dependent ones of the interrelated components; (iii) naming the dependent ones; and (iv) a uniform convention for the naming. However, none of these concepts are found in the Examiner's cited passage. Thus, Cobb fails to identically disclose the claimed invention, as recited in claim 1, within the meaning of 35 U.S.C. § 102.

On page 3 of the Office Action, the Examiner further asserted the following with regard to claim 1:

> Detecting error conditions (cot. 3, lines 55-59) arising from individual ones (col. 3, lines 49-50) of the interrelated components (Fig. 7) and (col. 4, lines 21-29)

Upon reviewing both Fig. 7 and the (3) separately cited passages, Appellants are unable to find any mention of the claimed "individual ones of the interrelated components." The Examiner's citations are both silent as to the interrelated components and also to the individual ones of the interrelated components. Thus, Cobb further fails to identically disclose the claimed invention, as recited in claim 1, within the meaning of 35 U.S.C. § 102.

On page 3 of the Office Action, the Examiner further asserted the following with regard to claim 1:

> Responsive to detecting an error condition in a specific one of the components (col. 4, lines 44-50), parsing a log associated with said specific one of the components (col. 6, lines 36-39) to determine whether said error condition arose from a fault in one of the interrelated components and resources named in said associated log (col. 4, lines 51-61).

The Examiner's cited passage of column 4, lines 44-50 is silent as to a specific one of the components. Moreover, the Examiner's cited passage of column 6, lines 36-39 does not teach "parsing a log associated with said specific one of the components." Instead, this passage teaches that a 'RIDS' keyword "contains the name of the module or component that detected the error." The claimed log records errors associated with corresponding component. In contrast, the "log" described by Cobb identifies the component that detects the error, which is not necessarily the same as the component that experiences the error. The Examiner's cited passage of column 4, lines 51-61 only teaches that the EDDC process uses information "to determine which areas of storage need to be captured," which is not identical to the claimed "to determine whether said error condition arose from a fault in one of the interrelated components and resources named in said associated log." Thus, Cobb further fails to identically disclose the claimed invention, as recited in claim 1, within the meaning of 35 U.S.C. § 102.

Therefore, for the reasons stated above, the Examiner has failed to establish that Cobb identically discloses the claimed invention, as recited in claims 1 and 10, within the meaning of 35 U.S.C. § 102.

Claim 7

Independent claim 7 present similar concepts to those present in claim 1 (e.g., "interrelated components and resources" and "standardized naming conventions for the

interrelated components and resources") and Appellants incorporate herein, as also applying to claim 7, the arguments previously presented with regard to claim 1.

Conclusion

Based upon the foregoing, Appellants respectfully submit that the Examiner's rejection under 35 U.S.C. § 102 is not viable. Appellants, therefore, respectfully solicit the Honorable Board to reverse the Examiner's rejection under 35 U.S.C. § 102.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due under 37 C.F.R. §§ 1.17, 41.20, and in connection with the filing of this paper, including extension of time fees, to Deposit Account 09-0461, and please credit any excess fees to such deposit account.

Date: June 1, 2007

Respectfully submitted,

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VIII. CLAIMS APPENDIX

1. A method for autonomically diagnosing and correcting error conditions in a computing system of interrelated components and resources, the method comprising the steps:

for each one of the components, reporting error conditions in a log file using both uniform conventions for naming dependent ones of the interrelated components and resources and also a common error reporting format;

detecting error conditions arising from individual ones of the interrelated components;

responsive to detecting an error condition in a specific one of the components, parsing a log associated with said specific one of the components to determine whether said error condition arose from a fault in one of the interrelated components and resources named in said associated log, and further parsing a log associated with said one of the interrelated components and resources to identify a cause for said fault; and,

correcting said fault.

2. The method of claim 1, further comprising the steps of:

inserting analysis code in said specific one of the components responsive to detecting said error condition, said analysis-code having a configuration for reporting operational data associated with said error condition; and,

utilizing said reported operational data to identify a cause for said error condition.

3. The method of claim 1, further comprising the steps of:

activating dormant analysis code in said specific one of the components responsive to detecting said error condition, said dormant analysis code having a configuration for reporting operational data associated with said error condition; and,

utilizing said reported operational data to identify a cause for said error condition.

4. The method of claim 1, further comprising the steps of:

inserting analysis code in both said specific one of the components and said one of the interrelated components and resources responsive to detecting said error condition, said analysis code having a configuration for reporting operational data for said specific one of the components and said one of the interrelated components and resources; and,

utilizing said reported operational data to correlate error conditions in each of said specific one of the components and said one of the interrelated components and resources to identify a cause for said error condition.

5. The method of claim 1, further comprising the step of inserting analysis code in said specific one of the components responsive to detecting said error condition, said analysis code having a configuration for suspending the operation of said specific one of the components pending resolution of said error condition.

6. The method of claim 1, wherein said correcting step comprises the steps of:

determining from said further parsing step whether said fault in said one of the interrelated components and resources named in said associated log arose from an additional fault in yet another one of the interrelated components and resources; and,

repeating each of the parsing and correcting steps for said yet another interrelated one the components and resources.

7. An autonomic system for diagnosing and correcting error conditions among interrelated components and resources comprising:

a plurality of commonly formatted log files utilizing standardized naming conventions for the interrelated components and resources, each of said commonly formatted log files having an association with one of the interrelated components and resources; and,

an autonomic system administrator coupled to each of the interrelated components and resources and configured to parse said log files to identify both error conditions arising in associated ones of the interrelated components and resources, and also dependent ones of the interrelated components and resources giving rise to the identified error conditions.

8. The autonomic system of claim 7, further comprising:

a codebase of analysis code; and,

code insertion logic coupled to said autonomic system administrator and programmed to insert portions of said analysis code in selected ones of the interrelated components and resources.

9. The autonomic system of claim 8, wherein said analysis code comprises byte code and wherein said code insertion logic comprises byte code insertion logic.

10. A machine readable storage having stored thereon a computer program for autonomically diagnosing and correcting error conditions in a computing system of interrelated components and resources, the computer program comprising a routine set of instructions for causing the machine to perform the steps:

for each one of the components, reporting error conditions in a log file using both uniform conventions for naming dependent ones of the interrelated components and resources and also a common error reporting format;

detecting error conditions arising from individual ones of the interrelated components;

responsive to detecting an error condition in a specific one of the components, parsing a log associated with said specific one of the components to determine whether said error condition arose from a fault in one of the interrelated components and resources named in said associated log, and further parsing a log associated with said one of the interrelated components and resources to identify a cause for said fault; and,

correcting said fault.

11. The machine readable storage of claim 10, further comprising the steps of:

inserting analysis code in said specific one of the components responsive to detecting said error condition, said analysis code having a configuration for reporting operational data associated with said error condition; and,

utilizing said reported operational data to identify a cause for said error condition.

12. The machine readable storage of claim 10, further comprising the steps of:

activating dormant analysis code in said specific one of the components responsive to detecting said error condition, said dormant analysis code having a configuration for reporting operational data associated with said error condition; and,

utilizing said reported operational data to identify a cause for said error condition.

13. The machine readable storage of claim 10, further comprising the steps of:

inserting analysis code in both said specific one of the components and said one of the interrelated components and resources responsive to detecting said error condition, said analysis code having a configuration for reporting operational data for said specific one of the components and said one of the interrelated components and resources; and,

utilizing said reported operational data to correlate error conditions in each of said specific one of the components and said one of the interrelated components and resources to identify a cause for said error condition.

14. The machine readable storage of claim 10, further comprising the step of inserting analysis code in said specific one of the components responsive to detecting said error condition, said analysis code having a configuration for suspending the operation of said specific one of the components pending resolution of said error condition.

15. The machine readable storage of claim 10, wherein said correcting step comprises the steps of:

determining from said further parsing step whether said fault in said one of the interrelated components and resources named in said associated log arose from an additional fault in yet another one of the interrelated components and resources; and,

repeating each of the parsing and correcting steps for said yet another interrelated one the components and resources.

IX. EVIDENCE APPENDIX

No evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 of this title or of any other evidence entered by the Examiner has been relied upon by Appellants in this Appeal, and thus no evidence is attached hereto.

X. RELATED PROCEEDINGS APPENDIX

Since Appellants are unaware of any related appeals and interferences, no decision rendered by a court or the Board is attached hereto.